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RAMAN, USHA	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/866,245	MIKI ET AL.	
	Examiner	Art Unit	
	Usha Raman	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 21st 2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 11 and 23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 5-6, 11-13, 16, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6.134.547).

In regards to claim 1, Schein teaches an electronic program guide retrieval method (see column 1, lines 49-56) comprising the steps of:

Receiving an input retrieval keyword from a client side (see column 2, lines 18-23);

Accessing a dictionary database based on an input retrieval keyword; (see column 13, lines 33-39).

Extracting a plurality of additional keywords (e.g. additional keywords are shown as relevant results for query "DR.") from dictionary database as a function of the input retrieval keyword, wherein each of the plurality of additional keywords are related to the input retrieval keyword (see column 13, lines 36-43);

Accessing an electronic program guide database (see column 13, lines 10-16) that stores electronic program guide data as a function of the first keyword and a plurality of additional keywords (in order to find a relevant search results to a user's query, the EPG data has to be stored with a portion of the keyword, that enables it to be identified as a query result); and

Downloading only electronic program guide data based on the extracted relevant keyword information from the electronic program guide data stored in said electronic program guide database and the input retrieval keyword (see column 13, lines 10-20).

Schein is silent on the step of extracting additional keywords comprising keywords corresponding to a person's name and keywords corresponding to a possible misused used character in the input retrieval keyword.

In a similar field of endeavor, Huxley discloses a method of searching a database for films according to keywords associated with persons, such as an actor, director, etc. Huxley discloses that methods are well known in the art that allow the step of performing database searches based on misspelled queries. See column 4,

lines 22-25. Therefore, methods for performing database searches when a user has entered misused characters (i.e. common misspellings of a name) in the input retrieval keyword were known at the time of the invention. Huxley further teaches the step of interlinking name or aka(s) of a person with credits in a film in the database, so that when any one of the names of the person is entered, all of the credited work related to the person is retrieved. See column 6, lines 66 – column 7, line 14. This enables a user to search for all titles associated with the actor regardless of changes to the actor's names.

All of the claimed elements, viz., enabling searches on misspelled queries and linking a plurality of names associated with a person in a database, were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions and the combination would have yielded predictable results of performing a successful database search even when a user enters a misspelled input retrieval keyword. For example, the modified system can be used to search actors according to common nicknames, as well as commonly misspelled names of the actors. Accordingly, Schein in view of Huxley teaches all the elements of claim 1.

Claim 11 is an apparatus claim corresponding to the method claim 1, and is analyzed and rejected as previously discussed.

As to claim 2, Schein discloses a method in which the EPG system database stores information relevant to television programs, such as movie titles and directors. (column 13, lines. 33- 36). The user can access this information by entering relevant

characters or words, which correspond to the desired program to be located (column 13, lines. 36-48). Therefore, the database contains keywords and words relevant to the input keywords, in order to arrive with a match corresponding terms in response to a user request. Accordingly, each and every limitation of applicant's claim 2 is taught by the combination of Schein in view of Huxley.

With regards to claim 3, Schein shows the step of entering a name of a person as an input retrieval keyword (see column 13, lines 12-15), and Huxley shows the step of conducting a database search for alternate names of the person (i.e. "aka(s)", see column 6, lines 65-column 7, line 10), such as nicknames, full name of the person, etc. Accordingly, each and every limitation of claim 3 is taught by the combination of Schein in view of Huxley.

With regards to claim 5, Huxley discloses the limitations searching a database for misspelled queries, as well as correlating all the alternate names of a person in a database. Therefore it would be obvious to one of ordinary skill in the art to include commonly misspellings of the person's name in the database, so when a user submits a commonly misspelled query of the name, relevant keywords related to the person can be retrieved.

As to claim 6, Schein discloses a method wherein the retrieval keywords and the relevant- keyword information extracted from the database are interrelated to each other. (column 13, lines 1- 20 & 33-48). Accordingly, each and every limitation of claim 6 is taught by the combination of Schein in view of Huxley.

As to claim 12, Schein's system contains a database, which could be located in the set-top box, television, or the like (i.e., client side). (column 9, lines 21-36). Accordingly, each and every limitation of claim 12 is taught by the combination of Schein in view of Huxley.

As to claim 13, Schein teaches a system containing a database, which could be accessed via the Internet (i.e., data server side), see column 8, lines 62-67 thru column 9, lines 1-9. Accordingly, each and every limitation of claim 13 is taught by the combination of Schein in view of Huxley.

Claim 16 is an apparatus claim corresponding to the method claim 5, and is analyzed and rejected as previously discussed therein.

As to claim 19, Schein's EPG includes data relevant to movie information (Fig. 10). Accordingly, each and every limitation of claim 19 is taught by the combination of Schein in view of Huxley.

As to claim 20, Schein's EPG includes data relevant to drama information. (see column 12, lines 17-20). Accordingly, each and every limitation of claim 20 is taught by the combination of Schein in view of Huxley.

Applicant's claim 21 recites the EPG system of claim 11, wherein the program information includes data relevant to place names. As discussed above, the combination of Schein in view of Huxley contains all limitations of claim 1. Specifically, Schein discloses a method of searching an EPG database (column 1, lines. 49-56), wherein, via an interface, a user can enter certain attributes (i.e., keywords) (column 2, lines 18-23), which retrieve information relevant to the entered

keyword from the EPG database (column 12, lines 66-67 thru column 13, lines 1-20 & 33-48). Once the relevant information is retrieved, the user selects the desired EPG data (column 13, lines 33-48). But, Schein fails to specifically disclose whether the program information retrieved can be relevant to place names. However, since Schein's system can retrieve any information contained on the database, which is relevant to the keyword, it would have been obvious that this information could contain data relevant to place names if the user entered a keyword related to a place name. For example, if a user enters "cowboys" as a keyword, Schein's system would likely retrieve a Dallas Cowboys football game to be played in Texas. Or, if a user were to input "geographic", Schein's system would likely retrieve any programs listed on the geography channel, some of which would be relevant to place names. In essence, would have been obvious that Schein's system could retrieve data relevant to place names because it is highly likely various programs listed on the database are related to or contain place names. Thus, Schein contains all limitations of applicant's claim 21.

Although claim 22 does not correspond to claim 21, it is analyzed and rejected accordingly because it contains the same elemental structure.

5. Claims 8-10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6.134.547) and further in view of Beach et al. (US Pre Grant Pub. 2003/0014753).

Applicant's claim 8 recites the EPG of claim 1, wherein the retrieval keyword belongs to a particular genre (category), while the relevant keyword information

belongs to a different genre. As discussed above, Schein in view of Huxley contains all limitations of claim 1, but fails to disclose the limitations of claim 8. However, within the same field of endeavor, Beach discloses a system in which a user can search an actor's name (genre of actor's names) and the system will retrieve all relevant information, which would include movies the actor appeared in (genre of movies). This, in essence, is a method of using a keyword from a certain genre, to retrieve relevant keyword information from a different genre. (Fig. 5 & 6; Page 2 Par. (00221). Accordingly, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the EPG of Schein with the genre teaching of Beach in order to provide the user with a more flexible searching tool.

Applicant's claim 9 recites the EPG of claim 8, where when the particular genre is relevant to cooking, while the different genre is relevant to cooks. As discussed above, the combined teachings of Schein, Huxley and Beach contain all limitations of claim 8. Specifying the genre as relevant to cooking, while the retrieval keyword is relevant to cooks is an obvious variant of claim 8 (because cooks and cooking could be categorized as different genres under the same logic of claim 8's rejection). Thus, Schein, Huxley and Beach contain all limitations of claim 9. (Moreover, cooks and cooking are interrelated and therefore could be analyzed and rejected as based upon the teaching of Schein used to reject claim 6).

Applicant's claim 10 recites the EPG of claim 8, wherein the particular genre is relevant to place names, the different genre is relevant to one of or a combination of neighboring city names, Country names, and regional names. As discussed

above, the combined teachings of Schein, Huxley and Beach contain all limitations of claim 8, but fail to specifically state the limitations recited in claim 10. However, claim 10 is an obvious variant of claim 8 because both claims are using a keyword from one genre to retrieve relevant keyword information from another genre. (In the alternative, the recited limitations are interrelated and thus, could be analyzed and rejected as in claim 6) Accordingly, the combined teachings of Schein, Huxley and Beach contain all limitations of claim 10.

Applicant's claim 14 recites the EPG system of claim 11, wherein said client downloads and stores the program information. As discussed above, Schein and Huxley contain all limitations of claim 11, but fail to teach whether the client is capable of downloading and storing program information. However, within the same field of endeavor, Beach further discloses the client unit is capable of downloading and storing program information. (Page 1, Par. (0018)). Therefore, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the modified EPG of Schein in view of Huxley with the client side downloading/storing capability of Beach in order to provide the client with an efficient method of storing EPG programming.

6. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6.134.547) and further in view of Kanungo et al. (US Pat. 5,966,637).

Applicant's claim 4 recites the EPG method of claim 1, wherein the retrieval keywords and the relevant keyword information is written in Hiragana and/or

Katakana characters used in Japanese writing. As discussed above, Schein and Huxley contain all limitations of claim 1, but fail to disclose a system capable of displaying Japanese language characters. However, within the same field of endeavor, Kanungo discloses a system capable of displaying multilingual text on set top boxes (column 3, lines 54-62), and specifically discusses hiragana and katakana characters (column 1, lines 49-58). Accordingly, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the EPG system of Schein and Huxley with the multilingual set-top box of Kanungo in order to provide the user with a system capable of searching and retrieving information via the Japanese language.

Claim 17 is an apparatus claim corresponding to the method claim 4, and is analyzed and rejected as previously discussed.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being patentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6.134.547) and Beach et al. (US Pre Grant Pub. 2003/0014753) and further in view of Livowsky (US Pat. 6,598,030).

Applicant's claim 7 recites the EPG of claim 1, wherein when part of a retrieval keyword is entered, the entire keyword and the relevant-keyword information are retrieved from a database storing previously input keywords in a predetermined order. As discussed above, the combination of Schein in view of Huxley contains all limitations of applicant's claim 1, but fails to specifically disclose the limitations of claim 7. However, within the same field of endeavor, Beach

discloses an EPG system whereby the system can retrieve keywords and relevant keywords based only upon entering a single character (i.e. part of a keyword). (Fig. 4, and Page 2 Par. (00211), but fails to disclose whether the system is capable of storing previously entered keywords in a predetermined order. However, within the same field of endeavor, Livowsky discloses a method of searching a database, whereby the database "learns" from a user's past entries (i.e., keywords) and updates the database accordingly. (column 2, lines 26-33; column 8, lines 8-15). Therefore, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the modified teachings of Schein and Beach with the "learning" capability of Livowsky's database in order to provide the user with a more expansive and flexible searching tool, which would be capable of updating the database.

8. Claims 15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6.134.547) and Livowsky (US Pat. 6,598,039).

Applicant's claim 15 recites the EPG system of claim 11, wherein the client access a necessary part of the data server via a routing server, which stores route information for the data server. As discussed above, the combination of Schein and Huxley contains all limitations of applicant's claim 11, but fails to disclose the additional limitations of claim 15. However, within the same field of endeavor, Livowsky discloses a searching database wherein the user accesses the desired portion of the system database (i.e., data server) via a system server, which

distributes (i.e., routes) the search requests among core engines (column 2, lines 44-57; column 4, lines 1-12 & 30-36). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the EPG of Schein and Huxley with the multiple server system of Livowsky in order to provide a more efficient searching system.

In regard to claim 23, Schein discloses an EPG retrieval system comprising:

A data server including a plurality of databases, one of which is a television electronic program guide database for storing program information of an EPG (see column 8, lines 62-67 and column 9, lines 1-9) containing only (this is inherent because Schein teaches identifying each show with various identifiers so that a selection/search criteria matching that identifier produces results matching only those preset identifiers defined by a EPG provider and not some arbitrary identifier; see column 11, lines 46 thru column 14, line 10) keywords determined by an EPG provider as retrieval keywords;

A client having a certain data storage capacity (hard disk 14) comprising input means (user input 20) for inputting a retrieval keyword for retrieving the program information (see column 3, lines 24-32);

A dictionary database provided at the data server side and the client side for storing retrieval keywords and relevant keywords to said retrieval keywords (see column 13, lines 33-43);

Extracting relevant keywords from dictionary database related to input keyword (see column 13, lines 36-43), wherein the client further sends the relevant

keyword (selection of one of plurality of keywords) to retrieve program information from data server (see column 13, lines 43-48).

Wherein an apparatus (client unit 400) including an access unit (402) for accessing data server and an input unit (410, 432) for inputting a retrieval keyword, can perform retrieval on the EPG data by using relevant keywords extracted from the dictionary database (see column 13, lines 36-48) at the server side.
Schein is silent on the step of extracting additional keywords comprising keywords corresponding to a person's name and keywords corresponding to a possible misused used character in the input retrieval keyword.

In a similar field of endeavor, Huxley discloses a method of searching a database for films according to keywords associated with persons, such as an actor, director, etc. Huxley discloses that methods are well known in the art that allow the step of performing database searches based on misspelled queries. See column 4, lines 22-25. Therefore, methods for performing database searches when a user has entered misused characters (i.e. common misspellings of a name) in the input retrieval keyword were known at the time of the invention. Huxley further teaches the step of interlinking name or aka(s) of a person with credits in a film in the database, so that when any one of the names of the person is entered, all of the credited work related to the person is retrieved. See column 6, lines 66 – column 7, line 14. This enables a user to search for all titles associated with the actor regardless of changes to the actor's names.

The claimed elements of presenting keywords related to searches on misspelled queries and presenting keywords corresponding to a person's name were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions and the combination would have yielded predictable results of performing a successful database search even when a user enters a misspelled input retrieval keyword. For example, the modified system can be used to search actors according to common nicknames, as well as commonly misspelled names of the actors. Accordingly, Schein in view of Huxley teaches all the elements of claim 1.

The combination of Schein and Huxley however fails to disclose a routing server having an access unit for accessing selectively the database and routing information, wherein the client sends the relevant keyword to the routing server and accesses one of the databases via the routing server and performs retrieval by accessing program information by selecting the route to the database.

Livowsky discloses a searching database wherein the user accesses the desired portion of the system database (i.e., data server) via a system server, which distributes (i.e., routes) the search requests among core engines (column 2, lines 44-57; column 4, lines 1-12 & 30-36).

It would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the EPG of Schein and Huxley with the multiple server system of Livowsky in order to provide the client access to databases at the

data server using routing servers for various routes for load balancing, thereby providing a more efficient searching system.

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US Pat. 6,133,909) in view of Huxley et al. (US Pat. 6.134.547) and further in view of Lee et al. (US Pat. 6,463428).

Applicant's claim 18 recites the EPG system of claim 11, wherein said dictionary database stores previously input keywords so that the input keywords are included in the relevant-keyword information, and the stored keywords are arranged in order of frequency of use. As discussed above, the combination of Schein in view of Huxley contains all limitations of claim 11, but fails to teach the limitations of claim 18. However, within the same field of endeavor, Lee et al discloses a system capable of storing keywords and ranking them based upon their frequency of use (column 5, lines 8- I 6; column 15, lines 10-64; Fig. 18). Accordingly, it would have been obvious to one ordinarily skilled in this art at the time of applicant's invention to combine the EPG of Schein with the keyword storage capability of Lee et al in order to provide the user with a more efficient searching system.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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